

10/756,620 and PCT US05/01711

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 14:20:44 ON 07 MAR 2006

=> file uspatfull

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'USPATFULL' ENTERED AT 14:20:51 ON 07 MAR 2006

CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 2 Mar 2006 (20060302/PD)

FILE LAST UPDATED: 2 Mar 2006 (20060302/ED)

HIGHEST GRANTED PATENT NUMBER: US7007305

HIGHEST APPLICATION PUBLICATION NUMBER: US2006048257

CA INDEXING IS CURRENT THROUGH 28 Feb 2006 (20060228/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 2 Mar 2006 (20060302/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2005

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2005

=> s us5718876/pn

L1 1 US5718876/PN

=> s band IV

436696 BAND

473105 IV

L2 89 BAND IV

(BAND(W) IV)

=> s l1 and l2

L3 1 L1 AND L2

=> d kwic

L3 ANSWER 1 OF 1 USPATFULL on STN

PI US 5718876 19980217

<--

SUMM . . . least the aluminum chlorhydroxide component of the composition, until the ratio of the height of the peak corresponding to Kd=0.7 ( **Band IV**) to that of the peak corresponding to Kd=0.5 (Band III) is at least 2:1. At column 2, lines 60-61 of. . .

=> s HPLC Band IV(p)20%

94378 HPLC

436696 BAND

473105 IV

5 HPLC BAND IV

(HPLC(W) BAND(W) IV)

3488591 20%

(20)

L4 3 HPLC BAND IV(P)20%

=> d 1-3 ibib abs

## L4 ANSWER 1 OF 3 USPATFULL on STN

ACCESSION NUMBER: 2005:214492 USPATFULL  
 TITLE: Amino acid free stable aluminum/zirconium antiperspirant solution  
 INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES  
 Parekh, Jawahar Chunilal, Livingston, NJ, UNITED STATES  
 PATENT ASSIGNEE(S): General Chemical Corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005186163	A1	20050825
APPLICATION INFO.:	US 2005-87010	A1	20050322 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2002-185298, filed on 28 Jun 2002, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST HALSEY ROAD, PARSIPPANY, NJ, 07054, US		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	376		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An amino acid free stable aluminum zirconium polyhydric alcohol aqueous solution having a high anhydrous antiperspirant solid concentration and a high percentage of low molecular weight aluminum species, i.e., containing 60% or more of band IV peak area based on high pressure liquid chromatography, is prepared by adding a zirconium salt to an aqueous polyhydric alcohol solution of a basic aluminum chloride.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

## L4 ANSWER 2 OF 3 USPATFULL on STN

ACCESSION NUMBER: 2005:208458 USPATFULL  
 TITLE: Method of making aluminum-zirconium antiperspirant of enhanced efficacy  
 INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005180934	A1	20050818
APPLICATION INFO.:	US 2004-756620	A1	20040217 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Arthur J. Plantamura, c/o General Chemical, 90 E. Halsey Road, Parsippany, NJ, 07054, US		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Page(s)		
LINE COUNT:	364		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel efficacious and less irritant aluminum-zirconium antiperspirant composition is provided by the addition of a small amount of  $\text{AlCl}_3$  and/or HCl to the activated aluminum component. After the heating of diluted basic aluminum chlorohydrate solution, cooling to room temperature, mixing with small amount of  $\text{AlCl}_3$  or HCl and then reacting with zirconium glycine complex, an aluminum-zirconium salt is produced with a maximum amount of depolymerization aluminum and zirconium species. The addition of a small amount of  $\text{AlCl}_3$  or HCl to the diluted and activated aluminum chlorohydrate solution accelerates the depolymerization of the activated ACH solution, and upon the addition of zirconium glycinate the solution is further depolymerized.

10/756,620 and PCT US05/01711

and results in the formation of less polymerized zirconium species.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 3 OF 3 USPATFULL on STN

ACCESSION NUMBER: 2004:1777 USPATFULL

TITLE: Amino acid free stable aluminum / zirconium

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

Parekh, Jawahar Chunilal, Livingston, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004001795	A1	20040101
	US 6960338	B2	20051101
APPLICATION INFO.:	US 2002-185298	A1	20020628 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Arthur J. Plantamura, General Chemical Corporation, 90 East Halsey Road, Parsippany, NJ, 07954		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	385		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An amino acid free stable aluminum zirconium polyhydric alcohol aqueous solution having a high anhydrous antiperspirant solid concentration and a high percentage of low molecular weight aluminum species, i.e., containing 60% or more of band IV peak area based on high pressure liquid chromatography, is prepared by adding a zirconium salt to an aqueous polyhydric alcohol solution of a basic aluminum chloride.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 14:20:44 ON 07 MAR 2006)

FILE 'USPATFULL' ENTERED AT 14:20:51 ON 07 MAR 2006

L1 1 S US5718876/PN  
L2 89 S BAND IV  
L3 1 S L1 AND L2  
L4 3 S HPLC BAND IV(P)20%

=> s HPLC Band IV  
94378 HPLC  
436696 BAND  
473105 IV  
L5 5 HPLC BAND IV  
(HPLC(W) BAND(W) IV)

=> d 1-5 ibib abs

L5 ANSWER 1 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2005:318034 USPATFULL

TITLE: Fragrance friendly and cost effective antiperspirant actives and method of making the same

INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, UNITED STATES

Amin, Pradip T., Edison, NJ, UNITED STATES

Shin, Chung Teck, Livingston, NJ, UNITED STATES

NUMBER	KIND	DATE
--------	------	------

-----  
PATENT INFORMATION: US 2005276773 A1 20051215  
APPLICATION INFO.: US 2004-865397 A1 20040610 (10)  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST  
HALSEY ROAD, PARSIPPANY, NJ, 07054, US  
NUMBER OF CLAIMS: 31  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 1 Drawing Page(s)  
LINE COUNT: 1124  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cost effective process is provided for making stable, efficacious, amino acid and polyhydric alcohol free concentrated aqueous aluminum zirconium salt solutions. Absence of amino acid, low iron content and low trace metal impurity levels improve compatibility with fragrances and minimizes the probability of the product color change and possibly fabric staining significantly. The novel aluminum zirconium actives also minimize iron contribution to underarm area that supports growth of microflora which is responsible for axillary malodour by the biotransformation of nonodorous precursors present in perspiration. The astringent complexes of the present invention may be obtained in solution or dry powder form. As a result, the complexes are satisfactory for use in any of wide variety of conventional antiperspirant forms.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 2 OF 5 USPATFULL on STN  
ACCESSION NUMBER: 2005:305302 USPATFULL  
TITLE: High pH antiperspirant compositions of enhanced efficacy  
INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

	NUMBER	KIND	DATE
-----			
PATENT INFORMATION:	US 2005265939	A1	20051201
APPLICATION INFO.:	US 2004-857493	A1	20040528 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST HALSEY ROAD, PARSIPPANY, NJ, 07054, US		
NUMBER OF CLAIMS:	32		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Page(s)		
LINE COUNT:	703		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Aluminum and aluminum-zirconium antiperspirant compositions of enhanced efficacy and a pH value of at least 3.5 are provided that are made by reaction with insoluble, strongly alkaline strontium or calcium salts. The aluminum and aluminum-zirconium strontium or calcium compositions show high pH values with characteristic HPLC Band III to Band II ratios of at least 0.5. The basic aluminum halohydrate (or nitrate) solutions typically have aluminum to anion ratio of less than 1.9. The solution compositions are stable with respect to both HPLC Band III to Band II ratio and viscosity at concentrations of about 20% to about 40% by weight of anhydrous solid. The solid state compositions form hard sticks with low irritation, at low metal to chloride ratios of about 0.9 to about 1.2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 3 OF 5 USPATFULL on STN

10/756,620 and PCT US05/01711

ACCESSION NUMBER: 2005:214492 USPATFULL  
TITLE: Amino acid free stable aluminum/zirconium  
antiperspirant solution  
INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES  
Parekh, Jawahar Chunilal, Livingston, NJ, UNITED STATES  
PATENT ASSIGNEE(S): General Chemical Corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005186163	A1	20050825
APPLICATION INFO.:	US 2005-87010	A1	20050322 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2002-185298, filed on 28 Jun 2002, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST HALSEY ROAD, PARSIPPANY, NJ, 07054, US		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	376		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An amino acid free stable aluminum zirconium polyhydric alcohol aqueous solution having a high anhydrous antiperspirant solid concentration and a high percentage of low molecular weight aluminum species, i.e., containing 60% or more of band IV peak area based on high pressure liquid chromatography, is prepared by adding a zirconium salt to an aqueous polyhydric alcohol solution of a basic aluminum chloride.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 4 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2005:208458 USPATFULL  
TITLE: Method of making aluminum-zirconium antiperspirant of enhanced efficacy  
INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005180934	A1	20050818
APPLICATION INFO.:	US 2004-756620	A1	20040217 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Arthur J. Plantamura, c/o General Chemical, 90 E. Halsey Road, Parsippany, NJ, 07054, US		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Page(s)		
LINE COUNT:	364		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel efficacious and less irritant aluminum-zirconium antiperspirant composition is provided by the addition of a small amount of  $\text{AlCl}_3$  and/or HCl to the activated aluminum component. After the heating of diluted basic aluminum chlorohydrate solution, cooling to room temperature, mixing with small amount of  $\text{AlCl}_3$  or HCl and then reacting with zirconium glycine complex, an aluminum-zirconium salt is produced with a maximum amount of depolymerization aluminum and zirconium species. The addition of a small amount of  $\text{AlCl}_3$  or HCl to the diluted and activated aluminum chlorohydrate solution accelerates the depolymerization of the activated ACH solution, and upon the addition of zirconium glycinate the solution is further depolymerized and results in the formation of less polymerized zirconium species.

10/756,620 and PCT US05/01711

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 5 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2004:1777 USPATFULL

TITLE: Amino acid free stable aluminum / zirconium

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

Parekh, Jawahar Chunilal, Livingston, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004001795	A1	20040101
	US 6960338	B2	20051101
APPLICATION INFO.:	US 2002-185298	A1	20020628 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Arthur J. Plantamura, General Chemical Corporation, 90 East Halsey Road, Parsippany, NJ, 07954		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	385		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An amino acid free stable aluminum zirconium polyhydric alcohol aqueous solution having a high anhydrous antiperspirant solid concentration and a high percentage of low molecular weight aluminum species, i.e., containing 60% or more of band IV peak area based on high pressure liquid chromatography, is prepared by adding a zirconium salt to an aqueous polyhydric alcohol solution of a basic aluminum chloride.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s peak 5

342534 PEAK

4245617 5

L6 805 PEAK 5

(PEAK(W) 5)

=> d his

(FILE 'HOME' ENTERED AT 14:20:44 ON 07 MAR 2006)

FILE 'USPATFULL' ENTERED AT 14:20:51 ON 07 MAR 2006

L1 1 S US5718876/PN

L2 89 S BAND IV

L3 1 S L1 AND L2

L4 3 S HPLC BAND IV(P) 20%

L5 5 S HPLC BAND IV

L6 805 S PEAK 5

=> s l1 and l6

L7 0 L1 AND L6

=> s antiperspirant? or deodorant?

3669 ANTIPERSPIRANT?

10522 DEODORANT?

L8 11606 ANTIPERSPIRANT? OR DEODORANT?

=> s l8/ti

448 ANTIPERSPIRANT?/TI

503 DEODORANT?/TI

10/756,620 and PCT US05/01711

L9 855 (ANTIPERSPIRANT?/TI OR DEODORANT?/TI)

=> s l9 and l5

L10 4 L9 AND L5

=> s glycine?

L11 90402 GLYCINE?

=> d l11 and l10

L10 IS NOT VALID HERE

For an explanation, enter "HELP DISPLAY".

=> s l11 and l10

L12 4 L11 AND L10

=> d 1-4 ibib abs

L12 ANSWER 1 OF 4 USPATFULL on STN

ACCESSION NUMBER: 2005:318034 USPATFULL

TITLE: Fragrance friendly and cost effective  
**antiperspirant** actives and method of making the same

INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, UNITED STATES

Amin, Pradip T., Edison, NJ, UNITED STATES

Shin, Chung Teck, Livingston, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005276773	A1	20051215
APPLICATION INFO.:	US 2004-865397	A1	20040610 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST HALSEY ROAD, PARSIPPANY, NJ, 07054, US		
NUMBER OF CLAIMS:	31		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	1124		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cost effective process is provided for making stable, efficacious, amino acid and polyhydric alcohol free concentrated aqueous aluminum zirconium salt solutions. Absence of amino acid, low iron content and low trace metal impurity levels improve compatibility with fragrances and minimizes the probability of the product color change and possibly fabric staining significantly. The novel aluminum zirconium actives also minimize iron contribution to underarm area that supports growth of microflora which is responsible for axillary malodour by the biotransformation of nonodorous precursors present in perspiration. The astringent complexes of the present invention may be obtained in solution or dry powder form. As a result, the complexes are satisfactory for use in any of wide variety of conventional antiperspirant forms.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 2 OF 4 USPATFULL on STN

ACCESSION NUMBER: 2005:305302 USPATFULL

TITLE: High pH **antiperspirant** compositions of enhanced efficacy

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

NUMBER	KIND	DATE
--------	------	------

10/756,620 and PCT US05/01711

PATENT INFORMATION: US 2005265939 A1 20051201  
APPLICATION INFO.: US 2004-857493 A1 20040528 (10)  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST  
HALSEY ROAD, PARSIPPANY, NJ, 07054, US  
NUMBER OF CLAIMS: 32  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 3 Drawing Page(s)  
LINE COUNT: 703

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Aluminum and aluminum-zirconium antiperspirant compositions of enhanced efficacy and a pH value of at least 3.5 are provided that are made by reaction with insoluble, strongly alkaline strontium or calcium salts. The aluminum and aluminum-zirconium strontium or calcium compositions show high pH values with characteristic HPLC Band III to Band II ratios of at least 0.5. The basic aluminum halohydrate (or nitrate) solutions typically have aluminum to anion ratio of less than 1.9. The solution compositions are stable with respect to both HPLC Band III to Band II ratio and viscosity at concentrations of about 20% to about 40% by weight of anhydrous solid. The solid state compositions form hard sticks with low irritation, at low metal to chloride ratios of about 0.9 to about 1.2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 3 OF 4 USPATFULL on STN

ACCESSION NUMBER: 2005:214492 USPATFULL  
TITLE: Amino acid free stable aluminum/zirconium  
**antiperspirant** solution  
INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES  
Parekh, Jawahar Chunilal, Livingston, NJ, UNITED STATES  
PATENT ASSIGNEE(S): General Chemical Corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005186163	A1	20050825
APPLICATION INFO.:	US 2005-87010	A1	20050322 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2002-185298, filed on 28 Jun 2002, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST HALSEY ROAD, PARSIPPANY, NJ, 07054, US		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	376		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An amino acid free stable aluminum zirconium polyhydric alcohol aqueous solution having a high anhydrous antiperspirant solid concentration and a high percentage of low molecular weight aluminum species, i.e., containing 60% or more of band IV peak area based on high pressure liquid chromatography, is prepared by adding a zirconium salt to an aqueous polyhydric alcohol solution of a basic aluminum chloride.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 4 OF 4 USPATFULL on STN

ACCESSION NUMBER: 2005:208458 USPATFULL  
TITLE: Method of making aluminum-zirconium  
**antiperspirant** of enhanced efficacy

10/756,620 and PCT US05/01711

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005180934	A1	20050818
APPLICATION INFO.:	US 2004-756620	A1	20040217 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Arthur J. Plantamura, c/o General Chemical, 90 E. Halsey Road, Parsippany, NJ, 07054, US		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Page(s)		
LINE COUNT:	364		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel efficacious and less irritant aluminum-zirconium antiperspirant composition is provided by the addition of a small amount of AlCl.sub.3 and/or HCl to the activated aluminum component. After the heating of diluted basic aluminum chlorohydrate solution, cooling to room temperature, mixing with small amount of AlCl.sub.3 or HCl and then reacting with zirconium **glycine** complex, an aluminum-zirconium salt is produced with a maximum amount of depolymerization aluminum and zirconium species. The addition of a small amount of AlCl.sub.3 or HCl to the diluted and activated aluminum chlorohydrate solution accelerates the depolymerization of the activated ACH solution, and upon the addition of zirconium glycinate the solution is further depolymerized and results in the formation of less polymerized zirconium species.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 14:20:44 ON 07 MAR 2006)

FILE 'USPATFULL' ENTERED AT 14:20:51 ON 07 MAR 2006

L1 1 S US5718876/PN  
L2 89 S BAND IV  
L3 1 S L1 AND L2  
L4 3 S HPLC BAND IV(P)20%  
L5 5 S HPLC BAND IV  
L6 805 S PEAK 5  
L7 0 S L1 AND L6  
L8 11606 S ANTIPERSPIRANT? OR DEODORANT?  
L9 855 S L8/TI  
L10 4 S L9 AND L5  
L11 90402 S GLYCINE?  
L12 4 S L11 AND L10

=> s band iv

436696 BAND

473105 IV

L13 89 BAND IV  
(BAND(W) IV)

=> s l13 and l9

L14 17 L13 AND L9

=> s l14 and l11

L15 14 L14 AND L11

=> d 1-14 ibib abs

L15 ANSWER 1 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2005:318034 USPATFULL

TITLE: Fragrance friendly and cost effective  
**antiperspirant** actives and method of making the sameINVENTOR(S): Parekh, Jawahar C., Livingston, NJ, UNITED STATES  
Amin, Pradip T., Edison, NJ, UNITED STATES  
Shin, Chung Teck, Livingston, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005276773	A1	20051215
APPLICATION INFO.:	US 2004-865397	A1	20040610 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST HALSEY ROAD, PARSIPPANY, NJ, 07054, US		
NUMBER OF CLAIMS:	31		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	1124		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cost effective process is provided for making stable, efficacious, amino acid and polyhydric alcohol free concentrated aqueous aluminum zirconium salt solutions. Absence of amino acid, low iron content and low trace metal impurity levels improve compatibility with fragrances and minimizes the probability of the product color change and possibly fabric staining significantly. The novel aluminum zirconium actives also minimize iron contribution to underarm area that supports growth of microflora which is responsible for axillary malodour by the biotransformation of nonodorous precursors present in perspiration. The astringent complexes of the present invention may be obtained in solution or dry powder form. As a result, the complexes are satisfactory for use in any of wide variety of conventional antiperspirant forms.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 2 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2005:305302 USPATFULL

TITLE: High pH **antiperspirant** compositions of enhanced efficacy

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005265939	A1	20051201
APPLICATION INFO.:	US 2004-857493	A1	20040528 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST HALSEY ROAD, PARSIPPANY, NJ, 07054, US		
NUMBER OF CLAIMS:	32		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Page(s)		
LINE COUNT:	703		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Aluminum and aluminum-zirconium antiperspirant compositions of enhanced efficacy and a pH value of at least 3.5 are provided that are made by reaction with insoluble, strongly alkaline strontium or calcium salts. The aluminum and aluminum-zirconium strontium or calcium compositions show high pH values with characteristic HPLC Band III to Band II ratios

10/756,620 and PCT US05/01711

of at least 0.5. The basic aluminum halohydrate (or nitrate) solutions typically have aluminum to anion ratio of less than 1.9. The solution compositions are stable with respect to both HPLC Band III to Band II ratio and viscosity at concentrations of about 20% to about 40% by weight of anhydrous solid. The solid state compositions form hard sticks with low irritation, at low metal to chloride ratios of about 0.9 to about 1.2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 3 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2005:247040 USPATFULL

TITLE: ENHANCED EFFICACY BASIC ALUMINUM HALIDES/METAL CATION SALT, **ANTIPERSPIRANTS** ACTIVES AND COMPOSITIONS CONTAINING SUCH MATERIALS AND METHODS FOR MAKING

INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, UNITED STATES  
Amin, Pradip, Edison, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005214234	A1	20050929
APPLICATION INFO.:	US 2004-807872	A1	20040324 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST HALSEY ROAD, PARSIPPANY, NJ, 07054, US		
NUMBER OF CLAIMS:	45		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	673		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are aqueous antiperspirant active compositions comprising an admixtures of basic aluminum halides and a metal cation salts which yield enhanced antiperspirant efficacy; and methods of making such antiperspirant compositions. The basic aluminum halides, optionally contain an amino acid or salts of amino acids, and/or antimicrobial agent and are combined with a metal cation antiperspirant (e.g., Ti salt or Hf salt or Sn salt or Zr salt) and optionally with a organic solvent having at least two carbon atoms and at least one hydroxy group and mixtures thereof and methods of making such mixtures. Basic aluminum halides having enhanced antiperspirant efficacy are produced by reacting (a) aluminum powder; (b) an aluminum halide; and (c) water at a temperature greater than about 85° C. This reaction is maintained until reaction products having an Al:halide ratio of about 1.2 to 1.5 and preferably 1.3 to 1.4:1; and a solution solids concentration of about 30-40 weight percent on an anhydrous basis are obtained. The basic aluminum halide of this invention are characterized as having a Size Exclusion Chromatography (HPLC) Test Band I of less than 5%, preferably less than 1%, Band II percent aluminum value of 20%-60% preferably about 35% to 55%, Band III percent aluminum value of 10% to 35% preferably 15%-30% and **Band IV** value of 15% to 50% preferably 25% to 35% and sum of peak 3 and 4 areas of at least 45% and no more than 70% and preferably 65%.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 4 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2005:214492 USPATFULL

TITLE: Amino acid free stable aluminum/zirconium **antiperspirant** solution

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

PATENT ASSIGNEE(S): Parekh, Jawahar Chunilal, Livingston, NJ, UNITED STATES  
General Chemical Corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005186163	A1	20050825
APPLICATION INFO.:	US 2005-87010	A1	20050322 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2002-185298, filed on 28 Jun 2002, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST HALSEY ROAD, PARSIPPANY, NJ, 07054, US		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	376		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An amino acid free stable aluminum zirconium polyhydric alcohol aqueous solution having a high anhydrous antiperspirant solid concentration and a high percentage of low molecular weight aluminum species, i.e., containing 60% or more of **band IV** peak area based on high pressure liquid chromatography, is prepared by adding a zirconium salt to an aqueous polyhydric alcohol solution of a basic aluminum chloride.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 5 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2005:208458 USPATFULL

TITLE: Method of making aluminum-zirconium  
**antiperspirant** of enhanced efficacy

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005180934	A1	20050818
APPLICATION INFO.:	US 2004-756620	A1	20040217 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Arthur J. Plantamura, c/o General Chemical, 90 E. Halsey Road, Parsippany, NJ, 07054, US		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Page(s)		
LINE COUNT:	364		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel efficacious and less irritant aluminum-zirconium antiperspirant composition is provided by the addition of a small amount of  $\text{AlCl}_3$  and/or HCl to the activated aluminum component. After the heating of diluted basic aluminum chlorohydrate solution, cooling to room temperature, mixing with small amount of  $\text{AlCl}_3$  or HCl and then reacting with zirconium **glycine** complex, an aluminum-zirconium salt is produced with a maximum amount of depolymerization aluminum and zirconium species. The addition of a small amount of  $\text{AlCl}_3$  or HCl to the diluted and activated aluminum chlorohydrate solution accelerates the depolymerization of the activated ACH solution, and upon the addition of zirconium glycinate the solution is further depolymerized and results in the formation of less polymerized zirconium species.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

10/756,620 and PCT US05/01711

L15 ANSWER 6 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2005:140303 USPATFULL

TITLE: Enhanced efficacy basic aluminum halides,  
**antiperspirant** active compositions and methods  
for making

INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, UNITED STATES  
Amin, Pradip, Edison, NJ, UNITED STATES

PATENT ASSIGNEE(S): Reheis, Inc., Berkeley Heights, NJ, UNITED STATES (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6902724	B1	20050607
APPLICATION INFO.:	US 2004-807996		20040324 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Plantamura, Arthur J.		
NUMBER OF CLAIMS:	33		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT:	1057		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are basic aluminum halides having enhanced antiperspirant efficacy; methods of making such materials and antiperspirant compositions containing such basic aluminum halides, and optionally an amino acid, salts of amino acids, antimicrobial agents, or an organic solvent having at least two carbon atoms and at least one hydroxy group and mixture thereof and methods of making such mixtures. Basic aluminum halides having enhanced antiperspirant efficacy are produced by reacting (a) aluminum powder; (b) an aluminum halide; and (c) water at a temperature greater than about 85° C. This reaction is maintained until reaction products having an Al:halide ratio of about 1.2:1 to 1.5:1 and preferably 1.3 to 1.4:1; and a solution solids concentration of about 30-40 weight percent on an anhydrous basis are obtained. The products are characterized as having a Size Exclusion Chromatography (HPLC) Test Band I of less than 5%, preferably less than 1%, Band II percent aluminum value of 20-60% preferably about 35 to 55%, Band III percent aluminum value of 10 to 35% preferably 15-30% and **Band IV** value of 15 to 50% and preferably 25 to 35% and sum of peak 3 and 4 areas of at least 45% and no more than 70% and preferably 65%. The enhanced efficacy basic aluminum chloride salts of this invention are more economical to produce, show enhanced efficacy and are more stable compared to the conventional enhanced efficacy aluminum salts which show rapid degradation of Band III to Band II peak areas ratio are less irritant and more skin friendly.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 7 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2005:22745 USPATFULL

TITLE: Stable aluminum / zirconium **antiperspirant**  
solution free of amino acid and polyhydric alcohol

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES  
Parekh, Jawahar, Livingston, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005019287	A1	20050127
APPLICATION INFO.:	US 2003-625038	A1	20030722 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		

10/756,620 and PCT US05/01711

LEGAL REPRESENTATIVE: Arthur J. Plantamura, General Chemical Corporation, 90  
East Halsey Rd, Parsippany, NJ, 07054  
NUMBER OF CLAIMS: 18  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 2 Drawing Page(s)  
LINE COUNT: 299

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A stable aluminum-zirconium aqueous solution of enhanced efficacy having  
a high concentration free of amino acid and polyhydric alcohol is  
disclosed. Such aluminum-zirconium salts are selected from  
aluminum/zirconium tetrachlorohydrate; aluminum/zirconium  
pentachlorohydrate, and aluminum/zirconium octachlorohydrate in which  
the aluminum to zirconium (Al/Zr) atomic ratio of said salt falls within  
the limits of the shaded areas A, B, and C, respectively, of the drawing  
graph wherein the aluminum/zirconium tetrachlorohydrate has an Al/Zr  
atomic ratio from about 2 to about 6 and metal/chloride molecular ratio  
about 0.9 to about 1.25; aluminum/zirconium pentachlorohydrate having  
Al/Zr atomic ratio from about 6 to about 10 and metal/chloride atomic  
ratio from about 1.5 to about 1.65; and aluminum/zirconium  
octachlorohydrate having Al/Zr molecular ratio from about 6 to about 10  
and metal/chloride molecular ratio from about 0.9 to about 1.5.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 8 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2004:120031 USPATFULL

TITLE: **Antiperspirant** compositions of enhanced  
efficacy containing strontium

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES  
Parekh, Jawahar C., Livingston, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004091436	A1	20040513
APPLICATION INFO.:	US 2002-292861	A1	20021112 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Arthur J. Plantamura, General Chemical Corp., 90 East Halsey Road, Parsippany, NJ, 07054		
NUMBER OF CLAIMS:	35		
EXEMPLARY CLAIM:	1		
LINE COUNT:	300		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Antiperspirant actives of aluminum and aluminum-zirconium of enhanced  
efficacy containing strontium and an amino acid that have a stable high  
HPLC Band III/II ratio are disclosed. The invention also discloses  
method for making the antiperspirant actives.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 9 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2002:238631 USPATFULL

TITLE: Enhanced efficacy aluminum-zirconium  
**antiperspirants** and methods for making

INVENTOR(S): Li, Zijun, 313 Hazel Ave., Westfield, NJ, United States  
07090  
Parekh, Jawahar Chunilal, 62 Hillside Ave., Livingston,  
NJ, United States 07039

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6451296	B1	20020917

APPLICATION INFO.: US 2000-496168 20000201 (9)  
 DOCUMENT TYPE: Utility  
 FILE SEGMENT: GRANTED  
 PRIMARY EXAMINER: Nazario-Gonzalez, Porfirio  
 LEGAL REPRESENTATIVE: Plantamura, Arthur J.  
 NUMBER OF CLAIMS: 26  
 EXEMPLARY CLAIM: 1,18,26  
 NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)  
 LINE COUNT: 460

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Stable aluminum-zirconium antiperspirant compositions in polyhydric alcohol solution with enhanced efficacy were made by direct reaction in aqueous solution of a soluble aluminum salt, a zirconium compound, a polyhydric alcohol, aluminum metal and optionally an amino acid buffer, and maintaining the solution at 100-140° C. to form a 20-45% by weight concentration of aluminum-zirconium complexes on an anhydrous basis. A solid product can be obtained by spray drying the product solution.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 10 OF 14 USPATFULL on STN

ACCESSION NUMBER: 1999:113352 USPATFULL  
 TITLE: Enhanced efficacy stable **antiperspirant** active solution and method of making same  
 INVENTOR(S): Giovanniello, Rocco, Port Jervis, NY, United States  
 Ayala, Nelson, Middletown, NY, United States  
 Shen, Jing, Middletown, NY, United States  
 Shah, Ketan, Poughkeepsie, NY, United States  
 PATENT ASSIGNEE(S): Westwood Chemical Corporation, Middletown, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5955064		19990921
APPLICATION INFO.:	US 1997-955056		19971021 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Ostrolenk, Faber, Gerb & Soffen, LLP		
NUMBER OF CLAIMS:	26		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	8 Drawing Figure(s); 8 Drawing Page(s)		
LINE COUNT:	1090		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An enhanced antiperspirant active having improved stability and a process for preparing the enhanced antiperspirant active solution are disclosed, the process comprises blending an enhanced basic aluminum chlorohydrate antiperspirant active having a peak 4 content of at least 20% (Component A) with a zirconium hydroxychloride neutral amino acid complex (component B) and a conventional basic aluminum chloride (Component C), the order of addition not being critical; wherein at least 10% by weight of the total aluminum being derived from Component A and about 90% to 10% of the aluminum being derived from Component C; thereby forming a stable antiperspirant active solution of enhanced efficacy, the overall concentration of reactants in solution being about 38% to 55% by weight.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 11 OF 14 USPATFULL on STN

ACCESSION NUMBER: 1999:63089 USPATFULL

TITLE: Method of inhibiting perspiration with basic aluminum and aluminum/zirconium **antiperspirants**  
INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, United States  
Rubino, Andrew M., New Providence, NJ, United States  
PATENT ASSIGNEE(S): Reheis Inc., Berkeley Heights, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5908616		19990601
APPLICATION INFO.:	US 1998-24041		19980216 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1996-635290, filed on 19 Apr 1996, now patented, Pat. No. US 5718876 which is a continuation of Ser. No. US 1990-579902, filed on 7 Sep 1990, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Panitch, Schwarze, Jacobs & Nadel, P.C.		
NUMBER OF CLAIMS:	13		
EXEMPLARY CLAIM:	1		
LINE COUNT:	558		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Basic aluminum halides and nitrates having enhanced antiperspirant efficacy are produced by reacting (a) aluminum powder, (b) an aluminum halide or nitrate solution and (c) water at a temperature greater than about 85° C. This reaction is maintained until reaction products having an Al:anion ratio of about 1.2 to 1.8 and a solution solids concentration of about 30-40 weight % on an anhydrous basis are obtained. The products are characterized as having a Size Exclusion Chromatography Test Band having a relative retention time corresponding to Band II of a Standard Basic Aluminum Chloride Size Exclusion Chromatogram and a Band II percent aluminum value of at least about 50% and a Band III percent aluminum value of less than 20%.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 12 OF 14 USPATFULL on STN

ACCESSION NUMBER: 1998:17052 USPATFULL  
TITLE: Basic aluminum and aluminum/zirconium **antiperspirants** and method of making the same  
INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, United States  
Rubino, Andrew M., New Providence, NJ, United States  
PATENT ASSIGNEE(S): Reheis Inc., Berkeley Heights, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5718876		19980217
APPLICATION INFO.:	US 1996-635290		19960419 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1990-579902, filed on 7 Sep 1990, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Panitch Schwarze Jacobs & Nadel, P.C.		
NUMBER OF CLAIMS:	10		
EXEMPLARY CLAIM:	1		
LINE COUNT:	517		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Basic aluminum halides and nitrates having enhanced antiperspirant efficacy are produced by reacting (a) aluminum powder, (b) an aluminum

10/756,620 and PCT US05/01711

halide or nitrate solution and (c) water at a temperature greater than about 85° C. This reaction is maintained until reaction products having an Al:anion ratio of about 1.2 to 1.8 and a solution solids concentration of about 30-40 weight % on an anhydrous basis are obtained. The products are characterized as having a Size Exclusion Chromatography Test Band having a relative retention time corresponding to Band II of a Standard Basic Aluminum Chloride Size Exclusion Chromatogram and a Band II percent aluminum value of at least about 50% and a Band III percent aluminum value of less than 20%.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 13 OF 14 USPATFULL on STN

ACCESSION NUMBER: 90:11121 USPATFULL  
TITLE: Preparation of **antiperspirants**  
INVENTOR(S): Inward, Peter W., Wirral, United Kingdom  
PATENT ASSIGNEE(S): Lever Brothers Company, New York, NY, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4900534		19900213
APPLICATION INFO.:	US 1987-82024		19870805 (7)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1986-19553	19860811
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Shine, W. J.	
LEGAL REPRESENTATIVE:	McGowan, Jr., Gerard J.	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
LINE COUNT:	446	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The disclosure concerns a process for the manufacture of aluminium zirconium halohydrate having an aluminium:zirconium molar ratio of from 2:1 to 7:1 and having a metal:chlorine molar ratio of from 0.9:1 to 2.1:1. Metallic aluminium is dissolved in an aqueous starting solution comprising an oxyhalide, hydroxyhalide or carbonate of zirconium and an aluminium halide or basic aluminium halide, which solution is heated at about 50° C. to 105° C. The solution of the final aluminium zirconium halohydrate has a concentration of metal of 0.5 to 2.3 moles/kg and a size exclusion chromatogram of which the Band III proportion is at least 20%.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 14 OF 14 USPATFULL on STN

ACCESSION NUMBER: 82:55655 USPATFULL  
TITLE: **Antiperspirant** activity of basic aluminum compounds  
INVENTOR(S): Gosling, Keith, Richmond, England  
Jackson, Nigel L., Otley, England  
Leon, Nicholas H., Isleworth, England  
Mulley, Victor J., Reading, England  
Baldock, Michael J., Isleworth, England  
PATENT ASSIGNEE(S): Lever Brothers Company, New York, NY, United States  
(U.S. corporation)

NUMBER	KIND	DATE
-----	-----	-----

10/756,620 and PCT US05/01711

PATENT INFORMATION: US 4359456 19821116  
APPLICATION INFO.: US 1980-213450 19801205 (6)  
RELATED APPLN. INFO.: Continuation of Ser. No. US 1979-51523, filed on 25 Jun 1979, now abandoned which is a continuation-in-part of Ser. No. US 1978-910988, filed on 30 May 1978, now abandoned which is a continuation of Ser. No. US 1977-758834, filed on 12 Jan 1977, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1976-1401	19760114
	GB 1978-27755	19780623
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Hearn, Brian E.	
LEGAL REPRESENTATIVE:	Feit, Irving N., Farrell, James J.	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1249	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An improved antiperspirant active material, and methods for its preparation, identification and use as well as cosmetic compositions containing said material are disclosed. Said material comprises a polymeric aluminum compound having the empirical formula

Al.sub.2 (OH).sub.6-a X.sub.a

where X is Cl, Br or I, a is about 0.3 to about 4; wherein said antiperspirant active material is further characterized by:

(a) a Size Exclusion Chromatography Test band having a relative retention time corresponding to Band III of the Standard Basic Aluminum Chloride Solution Size Exclusion Chromatogram; and

(b) a Band III Percent Aluminum Value of at least 20 percent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s zirconium?

L16 82609 ZIRCONIUM?

=> d his

(FILE 'HOME' ENTERED AT 14:20:44 ON 07 MAR 2006)

FILE 'USPATFULL' ENTERED AT 14:20:51 ON 07 MAR 2006

L1 1 S US5718876/PN  
L2 89 S BAND IV  
L3 1 S L1 AND L2  
L4 3 S HPLC BAND IV(P)20%  
L5 5 S HPLC BAND IV  
L6 805 S PEAK 5  
L7 0 S L1 AND L6  
L8 11606 S ANTIPERSPIRANT? OR DEODORANT?  
L9 855 S L8/TI  
L10 4 S L9 AND L5  
L11 90402 S GLYCINE?  
L12 4 S L11 AND L10  
L13 89 S BAND IV  
L14 17 S L13 AND L9  
L15 14 S L14 AND L11

10/756,620 and PCT US05/01711

L16 82609 S ZIRCONIUM?

=> s l15 and l16

L17 14 L15 AND L16

=> s us5718876/pn

L18 1 US5718876/PN

=> s l18 and l13

L19 1 L18 AND L13

=> d kwic

L19 ANSWER 1 OF 1 USPATFULL on STN

PI US 5718876 19980217

<--

SUMM . . . least the aluminum chlorhydroxide component of the composition,  
until the ratio of the height of the peak corresponding to Kd=0.7 (   
**Band IV**) to that of the peak corresponding to Kd=0.5  
(Band III) is at least 2:1. At column 2, lines 60-61 of. . .

10/756,620 and PCT US05/01711

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal503sxd

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS	1	Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	"Ask CAS" for self-help around the clock
NEWS	3 DEC 05	CASREACT(R) - Over 10 million reactions available
NEWS	4 DEC 14	2006 MeSH terms loaded in MEDLINE/LMEDLINE
NEWS	5 DEC 14	2006 MeSH terms loaded for MEDLINE file segment of TOXCENTER
NEWS	6 DEC 14	CA/CAPLUS to be enhanced with updated IPC codes
NEWS	7 DEC 21	IPC search and display fields enhanced in CA/CAPLUS with the IPC reform
NEWS	8 DEC 23	New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/USPAT2
NEWS	9 JAN 13	IPC 8 searching in IFIPAT, IFIUDB, and IFICDB
NEWS	10 JAN 13	New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to INPADOC
NEWS	11 JAN 17	Pre-1988 INPI data added to MARPAT
NEWS	12 JAN 17	IPC 8 in the WPI family of databases including WPIFV
NEWS	13 JAN 30	Saved answer limit increased
NEWS	14 JAN 31	Monthly current-awareness alert (SDI) frequency added to TULSA
NEWS	15 FEB 21	STN AnaVist, Version 1.1, lets you share your STN AnaVist visualization results
NEWS	16 FEB 22	Status of current WO (PCT) information on STN
NEWS	17 FEB 22	The IPC thesaurus added to additional patent databases on STN
NEWS	18 FEB 22	Updates in EPFULL; IPC 8 enhancements added
NEWS	19 FEB 27	New STN AnaVist pricing effective March 1, 2006
NEWS	20 FEB 28	MEDLINE/LMEDLINE reload improves functionality
NEWS	21 FEB 28	TOXCENTER reloaded with enhancements
NEWS	22 FEB 28	REGISTRY/ZREGISTRY enhanced with more experimental spectral property data
NEWS	23 MAR 01	INSPEC reloaded and enhanced
NEWS	24 MAR 03	Updates in PATDPA; addition of IPC 8 data without attributes
NEWS EXPRESS	FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005. V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT <a href="http://download.cas.org/express/v8.0-Discover/">http://download.cas.org/express/v8.0-Discover/</a>	
NEWS HOURS	STN Operating Hours Plus Help Desk Availability	
NEWS INTER	General Internet Information	
NEWS LOGIN	Welcome Banner and News Items	
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN	
NEWS WWW	CAS World Wide Web Site (general information)	

Enter NEWS followed by the item number or name to see news on that specific topic.

10/756,620 and PCT US05/01711

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 14:13:26 ON 07 MAR 2006

=> file uspatfull

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'USPATFULL' ENTERED AT 14:13:32 ON 07 MAR 2006

CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 2 Mar 2006 (20060302/PD)

FILE LAST UPDATED: 2 Mar 2006 (20060302/ED)

HIGHEST GRANTED PATENT NUMBER: US7007305

HIGHEST APPLICATION PUBLICATION NUMBER: US2006048257

CA INDEXING IS CURRENT THROUGH 28 Feb 2006 (20060228/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 2 Mar 2006 (20060302/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2005

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2005

=> s aluminum and zirconium

623092 ALUMINUM

82541 ZIRCONIUM

L1 55266 ALUMINUM AND ZIRCONIUM

=> s antiperspirant? or deodorant?

3669 ANTIPERSPIRANT?

10522 DEODORANT?

L2 11606 ANTIPERSPIRANT? OR DEODORANT?

=> s l1 and l2

L3 1436 L1 AND L2

=> s HPLC

L4 94378 HPLC

=> s l3 and l4

L5 124 L3 AND L4

=> s Band II and Band III and Band IV

436696 BAND

880648 II

267 BAND II

(BAND(W) II)

436696 BAND

664578 III

662 BAND III

(BAND(W) III)

436696 BAND

473105 IV

89 BAND IV

(BAND(W) IV)

L6 27 BAND II AND BAND III AND BAND IV

10/756,620 and PCT US05/01711

=> s 16 and 15  
L7 9 L6 AND L5

=> s glycine?  
L8 90402 GLYCINE?

=> s 18 and 17  
L9 9 L8 AND L7

=> d 1-9 ibib abs

L9 ANSWER 1 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2005:305302 USPATFULL  
TITLE: High pH **antiperspirant** compositions of  
enhanced efficacy  
INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005265939	A1	20051201
APPLICATION INFO.:	US 2004-857493	A1	20040528 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST HALSEY ROAD, PARSIPPANY, NJ, 07054, US		
NUMBER OF CLAIMS:	32		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Page(s)		
LINE COUNT:	703		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB **Aluminum** and **aluminum-zirconium antiperspirant** compositions of enhanced efficacy and a pH value of at least 3.5 are provided that are made by reaction with insoluble, strongly alkaline strontium or calcium salts. The **aluminum** and **aluminum-zirconium** strontium or calcium compositions show high pH values with characteristic **HPLC Band III to Band II** ratios of at least 0.5. The basic **aluminum** halohydrate (or nitrate) solutions typically have **aluminum** to anion ratio of less than 1.9. The solution compositions are stable with respect to both **HPLC Band III to Band II** ratio and viscosity at concentrations of about 20% to about 40% by weight of anhydrous solid. The solid state compositions form hard sticks with low irritation, at low metal to chloride ratios of about 0.9 to about 1.2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 2 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2005:247040 USPATFULL  
TITLE: ENHANCED EFFICACY BASIC **ALUMINUM**  
HALIDES/METAL CATION SALT, **ANTIPERSPIRANTS**  
ACTIVES AND COMPOSITIONS CONTAINING SUCH MATERIALS AND  
METHODS FOR MAKING  
INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, UNITED STATES  
Amin, Pradip, Edison, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005214234	A1	20050929
APPLICATION INFO.:	US 2004-807872	A1	20040324 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		

10/756,620 and PCT US05/01711

LEGAL REPRESENTATIVE: GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST  
HALSEY ROAD, PARSIPPANY, NJ, 07054, US

NUMBER OF CLAIMS: 45

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 1 Drawing Page(s)

LINE COUNT: 673

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are aqueous **antiperspirant** active compositions comprising an admixtures of basic **aluminum** halides and a metal cation salts which yield enhanced **antiperspirant** efficacy; and methods of making such **antiperspirant** compositions. The basic **aluminum** halides, optionally contain an amino acid or salts of amino acids, and/or antimicrobial agent and are combined with a metal cation **antiperspirant** (e.g., Ti salt or Hf salt or Sn salt or Zr salt) and optionally with a organic solvent having at least two carbon atoms and at least one hydroxy group and mixtures thereof and methods of making such mixtures. Basic **aluminum** halides having enhanced **antiperspirant** efficacy are produced by reacting (a) **aluminum** powder; (b) an **aluminum** halide; and (c) water at a temperature greater than about 85° C. This reaction is maintained until reaction products having an Al:halide ratio of about 1.2 to 1.5 and preferably 1.3 to 1.4:1; and a solution solids concentration of about 30-40 weight percent on an anhydrous basis are obtained. The basic **aluminum** halide of this invention are characterized as having a Size Exclusion Chromatography (HPLC) Test Band I of less than 5%, preferably less than 1%, **Band II** percent **aluminum** value of 20%-60% preferably about 35% to 55%, **Band III** percent **aluminum** value of 10% to 35% preferably 15%-30% and **Band IV** value of 15% to 50% preferably 25% to 35% and sum of peak 3 and 4 areas of at least 45% and no more than 70% and preferably 65%.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 3 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2005:208458 USPATFULL

TITLE: Method of making **aluminum-zirconium antiperspirant** of enhanced efficacy

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005180934	A1	20050818
APPLICATION INFO.:	US 2004-756620	A1	20040217 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Arthur J. Plantamura, c/o General Chemical, 90 E. Halsey Road, Parsippany, NJ, 07054, US		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Page(s)		
LINE COUNT:	364		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel efficacious and less irritant **aluminum-zirconium antiperspirant** composition is provided by the addition of a small amount of AlCl<sub>3</sub> and/or HCl to the activated **aluminum** component. After the heating of diluted basic **aluminum** chlorohydrate solution, cooling to room temperature, mixing with small amount of AlCl<sub>3</sub> or HCl and then reacting with **zirconium glycine** complex, an **aluminum-zirconium** salt is produced with a maximum amount of depolymerization **aluminum** and **zirconium** species. The

addition of a small amount of  $\text{AlCl}_3$  or  $\text{HCl}$  to the diluted and activated **aluminum** chlorohydrate solution accelerates the depolymerization of the activated ACH solution, and upon the addition of **zirconium** glycinate the solution is further depolymerized and results in the formation of less polymerized **zirconium** species.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 4 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2005:140303 USPATFULL

TITLE: Enhanced efficacy basic **aluminum** halides, **antiperspirant** active compositions and methods for making

INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, UNITED STATES  
Amin, Pradip, Edison, NJ, UNITED STATES

PATENT ASSIGNEE(S): Reheis, Inc., Berkeley Heights, NJ, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6902724	B1	20050607
APPLICATION INFO.:	US 2004-807996		20040324 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Plantamura, Arthur J.		
NUMBER OF CLAIMS:	33		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT:	1057		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are basic **aluminum** halides having enhanced **antiperspirant** efficacy; methods of making such materials and **antiperspirant** compositions containing such basic **aluminum** halides, and optionally an amino acid, salts of amino acids, antimicrobial agents, or an organic solvent having at least two carbon atoms and at least one hydroxy group and mixture thereof and methods of making such mixtures. Basic **aluminum** halides having enhanced **antiperspirant** efficacy are produced by reacting (a) **aluminum** powder; (b) an **aluminum** halide; and (c) water at a temperature greater than about 85° C. This reaction is maintained until reaction products having an Al:halide ratio of about 1.2:1 to 1.5:1 and preferably 1.3 to 1.4:1; and a solution solids concentration of about 30-40 weight percent on an anhydrous basis are obtained. The products are characterized as having a Size Exclusion Chromatography (HPLC) Test Band I of less than 5%, preferably less than 1%, **Band II** percent **aluminum** value of 20-60% preferably about 35 to 55%, **Band III** percent **aluminum** value of 10 to 35% preferably 15-30% and **Band IV** value of 15 to 50% and preferably 25 to 35% and sum of peak 3 and 4 areas of at least 45% and no more than 70% and preferably 65%. The enhanced efficacy basic **aluminum** chloride salts of this invention are more economical to produce, show enhanced efficacy and are more stable compared to the conventional enhanced efficacy **aluminum** salts which show rapid degradation of **Band III** to **Band II** peak areas ratio are less irritant and more skin friendly.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 5 OF 9 USPATFULL on STN

10/756,620 and PCT US05/01711

ACCESSION NUMBER: 2004:120031 USPATFULL  
TITLE: **Antiperspirant** compositions of enhanced efficacy containing strontium  
INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES  
Parekh, Jawahar C., Livingston, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004091436	A1	20040513
APPLICATION INFO.:	US 2002-292861	A1	20021112 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Arthur J. Plantamura, General Chemical Corp., 90 East Halsey Road, Parsippany, NJ, 07054		
NUMBER OF CLAIMS:	35		
EXEMPLARY CLAIM:	1		
LINE COUNT:	300		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB **Antiperspirant** actives of **aluminum** and **aluminum-zirconium** of enhanced efficacy containing strontium and an amino acid that have a stable high **HPLC Band III/II** ratio are disclosed. The invention also discloses method for making the **antiperspirant** actives.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 6 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2002:238631 USPATFULL  
TITLE: Enhanced efficacy **aluminum-zirconium antiperspirants** and methods for making  
INVENTOR(S): Li, Zijun, 313 Hazel Ave., Westfield, NJ, United States 07090  
Parekh, Jawahar Chunilal, 62 Hillside Ave., Livingston, NJ, United States 07039

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6451296	B1	20020917
APPLICATION INFO.:	US 2000-496168		20000201 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Nazario-Gonzalez, Porfirio		
LEGAL REPRESENTATIVE:	Plantamura, Arthur J.		
NUMBER OF CLAIMS:	26		
EXEMPLARY CLAIM:	1,18,26		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	460		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Stable **aluminum-zirconium antiperspirant** compositions in polyhydric alcohol solution with enhanced efficacy were made by direct reaction in aqueous solution of a soluble **aluminum** salt, a **zirconium** compound, a polyhydric alcohol, **aluminum** metal and optionally an amino acid buffer, and maintaining the solution at 100-140° C. to form a 20-45% by weight concentration of **aluminum-zirconium** complexes on an anhydrous basis. A solid product can be obtained by spray drying the product solution.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 7 OF 9 USPATFULL on STN

ACCESSION NUMBER: 1999:113352 USPATFULL

TITLE: Enhanced efficacy stable **antiperspirant**  
active solution and method of making same  
INVENTOR(S): Giovanniello, Rocco, Port Jervis, NY, United States  
Ayala, Nelson, Middletown, NY, United States  
Shen, Jing, Middletown, NY, United States  
Shah, Ketan, Poughkeepsie, NY, United States  
PATENT ASSIGNEE(S): Westwood Chemical Corporation, Middletown, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5955064		19990921
APPLICATION INFO.:	US 1997-955056		19971021 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Ostrolenk, Faber, Gerb & Soffen, LLP		
NUMBER OF CLAIMS:	26		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	8 Drawing Figure(s); 8 Drawing Page(s)		
LINE COUNT:	1090		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An enhanced **antiperspirant** active having improved stability and a process for preparing the enhanced **antiperspirant** active solution are disclosed, the process comprises blending an enhanced basic **aluminum** chlorohydrate **antiperspirant** active having a peak 4 content of at least 20% (Component A) with a **zirconium** hydroxychloride neutral amino acid complex (component B) and a conventional basic **aluminum** chloride (Component C), the order of addition not being critical; wherein at least 10% by weight of the total **aluminum** being derived from Component A and about 90% to 10% of the **aluminum** being derived from Component C; thereby forming a stable **antiperspirant** active solution of enhanced efficacy, the overall concentration of reactants in solution being about 38% to 55% by weight.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 8 OF 9 USPATFULL on STN

ACCESSION NUMBER: 1999:63089 USPATFULL  
TITLE: Method of inhibiting perspiration with basic **aluminum** and **aluminum/zirconium antiperspirants**  
INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, United States  
Rubino, Andrew M., New Providence, NJ, United States  
PATENT ASSIGNEE(S): Reheis Inc., Berkeley Heights, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5908616		19990601
APPLICATION INFO.:	US 1998-24041		19980216 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1996-635290, filed on 19 Apr 1996, now patented, Pat. No. US 5718876 which is a continuation of Ser. No. US 1990-579902, filed on 7 Sep 1990, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
LEGAL REPRESENTATIVE:	Panitch, Schwarze, Jacobs & Nadel, P.C.		
NUMBER OF CLAIMS:	13		
EXEMPLARY CLAIM:	1		